



# Langley Research Center Safety Alert

SA-13-91

Date: October 11, 1991

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**TO:** All Facility Safety Heads  
All Facility Coordinators

**FROM:** 429/Head, Risk Management Branch, SSQRD

**SUBJECT:** Potential Joint Failure Present in Certain Cryogenic  
Storage Tanks

Taylor-Wharton Cryogenics Company notified our Commercial Accounting Section of a potential joint failure on certain cryogenic storage tanks manufactured between August 1985 and January 1988. The affected tank model numbers are TM 500, TM 900, TM 1500, TM 3000 and TM 6000. Taylor-Wharton's purchasing records show that the Center purchased one such tank, located behind Building 1293A and action regarding repair of this tank has been initiated.

The potential joint failure is located where a brass tee is brazed to a stainless steel pipe in the liquid phase fill line. Complete failure of the tee joint could result in a rapid discharge of the cryogenic contents, causing burns if a person came into contact with the low temperature fluid. There is the risk of possible asphyxiation or hypoxia if nitrogen or argon is stored in the tank, or a combustion hazard if oxygen is stored in the tank and a source for ignition is present.

Union Carbide has issued an Industrial Gas Industry Safety Advisory for their tanks manufactured between 1964 and 1985. Union Carbide Industrial Gases Inc. sold their tank manufacturing business to Taylor Wharton in 1985. Approximately 7,200 tanks were manufactured during this earlier period and these are suspected to have the same defect. Notification letters have been sent to all owners of record, but locating all of the operators or owners of the tanks is proving to be difficult for Union Carbide.

While Langley has been notified by Taylor-Wharton about the only tank in their records, the Safety Advisory by Union Carbide indicates this problem potentially dates back as far as 1964. Facility Safety Heads and Facility Coordinators should check the nameplates of any industrial

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cryogenic liquid storage tanks under their purview to see if they are the Union Carbide or Taylor-Wharton tank models listed above. If any of the subject tanks are found, please call Mr. Don Porter at extension 43374 so that the appropriate repair can be initiated.

*V. William Wessel*  
V. William Wessel  
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